

LOCKHEED MARTIN SERVICES GROUP
ONE STERLING PLAZA
10101 SOUTHWEST FREEWAY, SUITE 500
HOUSTON, TEXAS 77074

MEMORANDUM

DATE: March 16, 1998

TO: Dr. Melvin Ritter, ESAT RPO, Region VI

FROM: Dr. Tom C.H. Chiang, ESAT Team Manager, Region VI

SUBJECT: CLP Data Review

REF: TDF # 6-8170A, ESAT File # O-1887
ESAT Contract No. 68-D6-0005

Attached is the data review summary for Case # 25969

SDG # FFR69

Site DOYLE F J

TRANSFORMERS

COMMENTS:

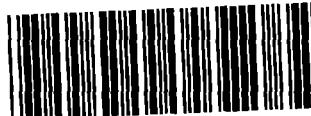
I. CONTRACTUAL ASSESSMENT OF THE DATA PACKAGE

A. The reviewer could only confirm the following contractually non-compliant items mentioned by CCS.

1. The laboratory extracted all Pest/PCB soil samples 15 days past the contractual holding time limit (OLM03.2, D-20/PEST, 8.4.1). The extraction of Pest/PCB samples FF-R89MS/MSD also exceeded the contractual limit by 24 days. The AR1260 results were qualified for samples FF-R72, FF-R73, FF-R75, FF-R77, FF-R78, FF-R79, FF-R80, and FF-R88.
2. Method blank PBLK2S, associated with Pest/PCB samples FF-R89MS/MSD, was contaminated with AR1260 above the CRQL, but the samples were not re-extracted (OLM03.2; D-73/PEST; 12.1.2.4.3 and 12.1.2.5.2). Sample results were not qualified.

B. The data package was 11 days late for the 35-day turnaround time requirement.

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MEMORANDUM

Case # 25969
SDG # FFR69
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II. TECHNICAL USABILITY ASSESSMENT OF THE DATA PACKAGE

The total number of results reviewed was 1566 for this data package. Some results were qualified because of the following significant problems.

- A. The technical holding time for extraction of Pest/PCB soil samples was excessive (26 days).
- B. Coeluting aroclor peaks interfered with the detection and quantitation of several pesticides.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 REGION 6
 HOUSTON BRANCH
 10625 FALLSTONE ROAD
 HOUSTON, TEXAS 77099

ORGANIC REGIONAL DATA ASSESSMENT

CASE NO. 25969
 LABORATORY CLAYTN
 CONTRACT# 68-D5-0005
 SDG# FFR69
 SOW# RAS OLM03.2

SITE DOYLE F J TRANSFORMERS
 NO. OF SAMPLES 14
 MATRIX 10 soil & 4 water
 REVIEWER (IF NOT ESD) ESAT
 REVIEWER'S NAME Mike Fertitta and
Yue-Mei Liu

ACCT# 8FAXJN27 SF# FAXU1D

COMPLETION DATE March 16, 1998

SAMPLE NO.'s: FF-R69 FF-R75 FF-R80 FF-R96
FF-R72 FF-R77 FF-R84 FF-R97
FF-R73 FF-R78 FF-R88
FF-R74 FF-R79 FF-R89

DATA ASSESSMENT SUMMARY

	VOA	BNA	PEST
1. HOLDING TIMES	O	O	M
2. GC/MS TUNE/INSTR. PERFORM.	O	O	O
3. CALIBRATIONS	M	O	O
4. BLANKS	O	O	O
5. SMC/SURROGATES	O	O	O
6. MATRIX SPIKE/DUPLICATE	O	O	O
7. OTHER QC	O	O	O
8. INTERNAL STANDARDS	O	O	N/A
9. COMPOUND ID/QUANTITATION	O	O	M
10. PERFORMANCE/COMPLETENESS	O	O	O
11. OVERALL ASSESSMENT	M	O	M

O = Data had no problems.

M = Data qualified due to major or minor problems.

Z = Data unacceptable.

NA = Not applicable.

ACTION ITEMS: The extraction of the Pest/PCB soil samples exceeded the contractual holding time limit. Samples were not re-extracted when the associated method blank was contaminated with AR1260 above the CRQL. The data package arrived 11 days late.

AREA OF CONCERN: Technical holding time was excessive for the extraction of Pest/PCB soil samples. Acetone failed the technical %RSD and %D calibration criteria. Aroclor peak interferences obscured the detection or interfered with the quantitation of pesticides in seven samples.

NOTABLE PERFORMANCE:

COMMENTS/CLARIFICATIONS
REGION VI CLP QA REVIEW

CASE 25969 SDG FFR69 SITE DOYLE F J TRANSFORMERS LAB CLAYTN

The following is a summary of sample qualifiers used by Region 6 in reporting this CLP data:

No.	Acceptable	Provisional	Unacceptable
VOA	5	9	100
BNA	12		303
PEST	4	8	84

COMMENTS: The case consisted of 10 soil samples and 2 water samples for complete RAS organics analysis and 2 water samples for VOA analysis only. The Regional RSCC clarified that samples FF-R69 and FF-R74 were rinsates, sample FF-R96 was a field blank, sample FF-R97 was a trip blank, and samples FF-R75 and FF-R80 were field duplicates. The OTR/COC Records did not indicate what sample was for laboratory QC. The laboratory performed MS/MSD analyses on VOA sample FF-R72, BNA samples FF-R79 (medium level) and FF-R88 (low level), and Pest/PCB sample FF-R89. Five BNA soil samples were analyzed at medium levels because of high non-target compound concentrations. Other soil samples were low level samples.

The data package had the following contractually non-compliant items.

- Pest/PCB soil samples were extracted 15 days past the contractual holding time limit.
- The MS/MSD samples were not re-extracted when the associated method blank was contaminated with AR1260 above the CRQL.
- The data package arrived 11 days late for the 35-day turnaround time.

VOA/BNA: The VOA TCL analytes reported above the CRQL's included acetone, 2-butanone, and tetrachloroethene. However, the acetone and 2-butanone concentrations were due to laboratory contamination. The only BNA TCL analyte reported above the CRQL was hexachlorobenzene in sample FF-R72.

Pest/PCB: Extremely high concentrations of AR1260 (up to 4,100,000 µg/Kg) required 10X to 10,000X dilution for samples FF-R72, FF-R73, FF-R75, FF-R79, and FF-R80. AR1260 was also reported above the CRQL's in samples FF-R77, FF-R78, and FF-R88. Coeluting aroclor peaks interfered with the detection and quantitation of several pesticides.

Some results are provisional for nine VOA and eight Pest/PCB samples because of problems with holding time, calibration,

ORGANIC QA REVIEW
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CASE 25969 SDG FFR69 SITE DOYLE F J TRANSFORMERS LAB CLAYTN

COMMENTS (continued): compound identification, and compound quantitation. The technical usability of all reported sample results is indicated by ESAT's final data qualifiers in the Data Summary Table. An Evidence Audit was conducted for the Complete Sample Delivery Group File (CSF), and the results were recorded in the Evidence Inventory Checklist.

NOTE: THE FOLLOWING REVIEW NARRATIVE ADDRESSES BOTH CONTRACTUAL ISSUES (BASED ON THE STATEMENT OF WORK) AND TECHNICAL ISSUES (BASED ON THE NATIONAL FUNCTIONAL GUIDELINES): THE ASSESSMENT MADE FOR EACH QC PARAMETER IS SOLELY BASED ON THE TECHNICAL DATA USABILITY, WHICH MAY NOT NECESSARILY BE AFFECTED BY CONTRACTUAL PROBLEMS. THE ASSESSMENTS ARE DEFINED BELOW.

Acceptable = No results were qualified for any problem associated with this QC parameter.

Provisional = Some results were qualified because of problems associated with this QC parameter.

Unusable = All results are unusable because of major problems associated with this QC parameter.

1. Holding Times: Provisional. The laboratory met contractual and technical holding time criteria for the VOA and BNA samples and for the Pest/PCB water samples but extracted all of the Pest/PCB soil samples 15 days past the contractual holding time limit. Technical holding times have not yet been established for soil samples. However, per Region 6 guidelines, the reviewer qualified as estimated the AR1260 results for Pest/PCB samples FF-R72, FF-R73, FF-R75, FF-R77, FF-R78, FF-R79, FF-R80, and FF-R88 because the technical holding time of the samples was 26 days. The other Pest/PCB sample results did not have analyte concentrations above the quantitation limits or were flagged "U" because of interferences, so qualification of those results was not required.

The laboratory received all samples at slightly elevated cooler temperatures (6.6°C and 7.8°C). In the reviewer's opinion, the cooler temperatures had no effect on the sample results.

2. Tuning/Performance: Acceptable. The BFB and DFTPP analyses met GC/MS tuning criteria for the VOA and BNA fractions. Endosulfan I and α-chlordane coeluted on column DB-5MS while their retention time windows overlapped on column DB-608. The reviewer verified that these problems did not affect the identification of Pest/PCB target analytes above CRQL levels in the samples.

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CASE 25969 SDG FFR69 SITE DOYLE F J TRANSFORMERS LAB CLAYTN

3. **Calibrations:** Provisional.. Target analytes generally met contractual calibration criteria. The reviewer qualified the acetone concentrations as estimated in the following samples because of the technical %RSD and %D deficiencies: FF-R69, FF-R72, FF-R73, FF-R75, FF-R77, FF-R78, FF-R79, FF-R80, and FF-R88.

4. **Blanks:** Acceptable. All method, storage, and instrument blanks met contractual QC guidelines.

VOA/BNA: The method and storage blanks for VOA and BNA analyses contained bromomethane, methylene chloride, acetone, carbon disulfide, 2-butanone, 2-hexanone, 1,1,2,2-tetrachloroethane, diethylphthalate, and/or bis(2-ethylhexyl)phthalate below the contractual upper limits. Bromomethane, 2-hexanone, and 1,1,2,2-tetrachloroethane were not detected in any samples. The storage blank contamination was most likely introduced during the analysis rather than storage.

The method blanks for the BNA low level soil analysis were contaminated with high concentrations of alkanes (5,100 to 12,000 µg/kg). The reviewer verified that the early eluting hydrocarbons (eluting before 8 minutes) were attributed to laboratory contamination in all low level soil samples.

The reviewer qualified the bis(2-ethylhexyl)phthalate concentration in sample FF-R73 with a "B" flag to indicate a high bias resulting from laboratory contamination. All other VOA and BNA sample results that were "B" flagged by the laboratory should be considered as undetected (U) because the sample concentrations were less than 5X/10X the associated blank concentrations.

Pest/PCB: The instrument blanks and the method blank for the water samples were free from contamination. Method blank PBLK2S, associated only with the MS/MSD samples, was contaminated with AR1260 above the CRQL. Aroclor peaks were also reported in that blank as endrin and endrin ketone. The MS/MSD concentrations of AR1260 were more comparable to the concentration in the unspiked sample than they were to that in method blank PBLK2S, and the unspiked sample was associated with a method blank free from AR1260. In the reviewer's opinion, the AR1260 contamination in method blank PBLK2S was an isolated event not affecting the MS/MSD samples. Endrin was reported below the CRQL in method blank PBLK1S, but the endrin concentrations reported in the associated samples resulted from aroclor peak interference and not from laboratory contamination.

Field QC: Rinsate samples FF-R69 and FF-R74 were free from Pest/PCB contamination. The trip blank, field blank, and rinsate

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4. Blanks (continued): samples contained acetone, chloroform, 4-chloro-3-methylphenol, or diethylphthalate below the CRQL's. In addition, one of the rinsate samples contained acetone at the CRQL level. Sample results were not qualified based on field contamination because these field QC samples (water) and the field samples (soil) had different matrices and reporting units. Furthermore, information associating field samples with the rinsates was not available.

5. System Monitoring Compounds (SMC's)/Surrogates: Acceptable. All SMC and most surrogate recoveries met the contractual QC criteria. TCX recoveries were marginally below the contractual QC limit but within the expanded Region 6 limit for Pest/PCB sample FF-R78. Matrix interferences and/or dilution caused outlying surrogate recoveries for four other Pest/PCB samples. Therefore, Pest/PCB result qualification is unnecessary. The reviewer verified that Pest/PCB target analyte results were not affected by matrix interferences except for aroclor interferences which are discussed in Section 9 below.

6. Matrix Spike/Matrix Spike Duplicate: Acceptable. The BNA MS/MSD recoveries exceeded the upper QC limits for 2,4-dinitrotoluene and/or 4-nitrotoluene in the low soil and medium soil analyses. In addition, the %RPD exceeded the QC limits for toluene in VOA low soil analysis and for all BNA matrix spiking compounds in the medium level soil analysis. Since these TCL analytes were not detected above the CRQL's in the unspiked samples, results were not qualified. All other MS/MSD results met QC criteria for percent recovery and precision.

7. Other QC:

Field Duplicates: Acceptable. Field duplicate results were generally consistent.

8. Internal Standards (IS): Acceptable. The internal standard areas and retention times were within the QC limits for all of the VOA and BNA analyses.

9. Compound Identity (ID)/Quantitation: Provisional.

VOA/BNA: The TCL analytes reported above the CRQL's were acetone, 2-butanone, tetrachloroethene, and hexachlorobenzene. Except for BNA sample FF-R73, the acetone, 2-butanone, and bis(2-ethylhexyl)phthalate concentrations reported were due to laboratory contamination. All reported results met the compound identification and quantitation criteria.

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9. Compound ID/Quantitation (continued): Pest/PCB: Extremely high concentrations of AR1260 (up to 100,000 µg/Kg) required 10X to 10,000X dilution for samples FF-R72, FF-R73, FF-R75, FF-R79, and FF-R80. The reviewer recommends using quantitation limits from the less diluted analyses for these samples except for those analytes whose detection was obscured by significant aroclor interferences. The results recommended for use are designated in the Data Summary Table. AR1260 was also reported above the CRQL's in samples FF-R77, FF-R78, and FF-R88.

The presence of AR1260 was confirmed by GC/MS analysis in samples FF-R72, FF-R73, FF-R75, FF-R77, FF-R79, and FF-R80. The GC/MS analysis did not confirm the identification of endrin and endrin ketone in samples FF-R72, FF-R75, and FF-R80. The laboratory reported the GC/MS detection limits for these analytes but calculated them based on an incorrect extraction level. The reviewer corrected these errors in the ESAT Data Summary Table.

AR1260 peaks interfered with the detection and identification of some pesticides on one or both columns. These interferences resulted in the sample result qualifications addressed below:

- The following analyte concentrations reported by the laboratory should be considered as raised quantitation limits ("U"):
 - endrin in sample FF-R77;
 - endrin and endrin ketone in samples FF-R73DL, FF-R78, and FF-R79DL;
 - endosulfan II and γ-chlordan in sample FF-R80; and
 - γ-chlordan in samples FF-R72, FF-R75 and FF-R79.
- The following concentrations reported below the quantitation limits (QL) were raised to the QL's and flagged "U":
 - endosulfan II and γ-chlordan in sample FF-R73;
 - endrin ketone in samples FF-R77, FF-R84, and FF-R88; and
 - endrin in samples FF-R84, FF-R88, and FF-R89.

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9. Compound ID/Quantitation (continued) :

- The quantitation limits reported by the laboratory for DDT were qualified as estimated and biased low for samples FF-R72DL, FF-R73DL, FF-R75DL, FF-R77, FF-R78, FF-R79DL, and FF-R80DL.
- The quantitation limit (QL) reported by the laboratory for AR1254 in sample FF-R75 was qualified as estimated and biased low. The actual quantitation limit may be at least 1.5X the reported QL.

The reviewer qualified the AR1260 result for sample FF-R77 as estimated because the percent difference for the two-column quantitation results was greater than 25 percent.

10. Performance/Completeness: Acceptable. The data package was complete with minor deficiencies (see the FAX Record Log).

11. Overall Assessment: Data are acceptable for five VOA, all BNA, and four Pest/PCB samples.

VOA The acetone results are provisional for the following samples because of problems with calibrations: FF-R69, FF-R72, FF-R73, FF-R75, FF-R77, FF-R78, FF-R79, FF-R80, and FF-R88.

PEST Some results are provisional for samples FF-R72/DL, FF-R73/DL, FF-R75/DL, FF-R77, FF-R78, FF-R79/DL, FF-R80/DL, and FF-R88 because of problems with holding time, compound identification, and/or compound quantitation.

ORGANIC DATA QUALIFIER DEFINITIONS

The following definitions provide brief explanations of the ESAT-Region 6 qualifiers assigned to results in the Data Summary Table.

- U Not detected at reported quantitation limit.
- N Identification is tentative.
- J Estimated value.
- R Unusable.
- ^ High biased. Actual concentration may be lower than the concentration reported.
- v Low biased. Actual concentration may be higher than the concentration reported.
- F+ A false positive exists.
- F- A false negative exists.
- B This result may be high biased because of laboratory/field contamination. The reported concentration is above 5X or 10X the concentration reported in the method/field blank.
- UJ Estimated quantitation limit.
- T Identification is questionable because of absence of other commonly coexisting pesticides.
- * Result not recommended for use because of associated QA/QC performance inferior to that from other analysis.

ORGANIC DATA SUMMARY

Case No.: 25969	SDG:	FFR69	Reviewer:	Yue-Mei Liu
Laboratory: CLAYTN	Matrix:	WATER	Units:	ug/L
<u>VOLATILES</u>				
EPA SAMPLE NUMBER:	FLAG FF-R69	FLAG FF-R74	FLAG FF-R96	FLAG FF-R97
Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene chloride	10 U	10 U	10 U	10 U
Acetone	10 J	4 J	10 U	9 J
Carbon disulfide	10 U	10 U	10 U	10 U
1,1-Dichloroethene	10 U	10 U	10 U	10 U
1,1-Dichloroethane	10 U	10 U	10 U	10 U
1,2-Dichloroethene (total)	10 U	10 U	10 U	10 U
Chloroform	10 U	10 U	1 J	10 U
1,2-Dichloroethane	10 U	10 U	10 U	10 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	10 U	10 U	10 U	10 U
Carbon tetrachloride	10 U	10 U	10 U	10 U
Bromodichloromethane	10 U	10 U	10 U	10 U
1,2-Dichloropropane	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	10 U	10 U	10 U	10 U
Trichloroethene	10 U	10 U	10 U	10 U
Dibromochloromethane	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	10 U	10 U	10 U	10 U
Benzene	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	10 U	10 U	10 U	10 U
Bromoform	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U	10 U
Toluene	10 U	10 U	10 U	10 U
Chlorobenzene	10 U	10 U	10 U	10 U
Ethylbenzene	10 U	10 U	10 U	10 U
Styrene	10 U	10 U	10 U	10 U
Xylenes (total)	10 U	10 U	10 U	10 U
Sample Volume (mL):	5.0	5.0	5.0	5.0
Dilution Factor:	1	1	1	1
Number of TIC's:	1	0	0	0

Note: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

ORGANIC DATA SUMMARY

Case No.: 25969

SDG: FFR69

Reviewer: Yue-Mei Liu

Laboratory: CLAYTN

Matrix: SOIL

Units: ug/Kg

VOLATILES	FLAG						
EPA SAMPLE NUMBER:	FF-R72	FF-R73	FF-R75	FF-R77	FF-R78	FF-R79	FF-R80
Chloromethane	13 U	13 U	14 U	12 U	13 U	12 U	14 U
Bromomethane	13 U	13 U	14 U	12 U	13 U	12 U	14 U
Vinyl chloride	13 U	13 U	14 U	12 U	13 U	12 U	14 U
Chloroethane	13 U	13 U	14 U	12 U	13 U	12 U	14 U
Methylene chloride	13 U	13 U	14 U	12 U	13 U	12 U	14 U
Acetone	49 UJ	85 UJ	73 UJ	140 UJ	22 UJ	51 UJ	19 UJ
Carbon disulfide	13 U	13 U	14 U	12 U	13 U	12 U	14 U
1,1-Dichloroethene	13 U	13 U	14 U	12 U	13 U	12 U	14 U
1,1-Dichloroethane	13 U	13 U	14 U	12 U	13 U	12 U	14 U
1,2-Dichloroethene (total)	13 U	13 U	14 U	12 U	13 U	12 U	14 U
Chloroform	13 U	13 U	14 U	12 U	13 U	12 U	14 U
1,2-Dichloroethane	13 U	13 U	14 U	12 U	13 U	12 U	14 U
2-Butanone	13 U	13 U	14 U	21 U	13 U	12 U	14 U
1,1,1-Trichloroethane	13 U	13 U	14 U	12 U	13 U	12 U	14 U
Carbon tetrachloride	13 U	13 U	14 U	12 U	13 U	12 U	14 U
Bromodichloromethane	13 U	13 U	14 U	12 U	13 U	12 U	14 U
1,2-Dichloropropane	13 U	13 U	14 U	12 U	13 U	12 U	14 U
cis-1,3-Dichloropropene	13 U	13 U	14 U	12 U	13 U	12 U	14 U
Trichloroethene	13 U	13 U	14 U	12 U	13 U	12 U	14 U
Dibromochloromethane	13 U	13 U	14 U	12 U	13 U	12 U	14 U
1,1,2-Trichloroethane	13 U	13 U	14 U	12 U	13 U	12 U	14 U
Benzene	13 U	13 U	14 U	12 U	13 U	12 U	14 U
trans-1,3-Dichloropropene	13 U	13 U	14 U	12 U	13 U	12 U	14 U
Bromoform	13 U	13 U	14 U	12 U	13 U	12 U	14 U
4-Methyl-2-pentanone	13 U	13 U	14 U	12 U	13 U	12 U	14 U
2-Hexanone	13 U	13 U	14 U	12 U	13 U	12 U	14 U
Tetrachloroethene	13 U	13 U	14 U	12 U	13 U	20	14 U
1,1,2,2-Tetrachloroethane	13 U	13 U	14 U	12 U	13 U	12 U	14 U
Toluene	13 U	13 U	14 U	12 U	13 U	12 U	14 U
Chlorobenzene	13 U	13 U	14 U	12 U	13 U	12 U	14 U
Ethylbenzene	13 U	13 U	14 U	12 U	13 U	12 U	14 U
Styrene	13 U	13 U	14 U	12 U	13 U	12 U	14 U
Xylenes (total)	13 U	13 U	14 U	12 U	13 U	12 U	14 U
Sample wt (g):	5.0	5.0	5.0	5.0	5.0	5.0	5.0
%Moisture:	25	25	27	14	24	20	27
Dilution Factor:	1	1	1	1	1	1	1
Level:	Low						
Number of TIC's:	4	2	3	6	4	3	2

Note: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

ORGANIC DATA SUMMARY

Case No.: 25969	SDG:	FFR69	Reviewer:	Yue-Mei Liu
Laboratory: CLAYTN	Matrix:	SOIL	Units:	ug/Kg
<u>VOLATILES</u>				
EPA SAMPLE NUMBER:	FLAG FF-R84	FLAG FF-R88	FLAG FF-R89	FLAG
Chloromethane	13 U	13 U	12 U	
Bromomethane	13 U	13 U	12 U	
Vinyl chloride	13 U	13 U	12 U	
Chloroethane	13 U	13 U	12 U	
Methylene chloride	13 U	13 U	12 U	
Acetone	13 U	47 UJ	12 U	
Carbon disulfide	13 U	13 U	12 U	
1,1-Dichloroethene	13 U	13 U	12 U	
1,1-Dichloroethane	13 U	13 U	12 U	
1,2-Dichloroethene (total)	13 U	13 U	12 U	
Chloroform	13 U	13 U	12 U	
1,2-Dichloroethane	13 U	13 U	12 U	
2-Butanone	13 U	13 U	12 U	
1,1,1-Trichloroethane	13 U	13 U	12 U	
Carbon tetrachloride	13 U	13 U	12 U	
Bromodichloromethane	13 U	13 U	12 U	
1,2-Dichloropropane	13 U	13 U	12 U	
cis-1,3-Dichloropropene	13 U	13 U	12 U	
Trichloroethene	13 U	13 U	12 U	
Dibromochloromethane	13 U	13 U	12 U	
1,1,2-Trichloroethane	13 U	13 U	12 U	
Benzene	13 U	13 U	12 U	
trans-1,3-Dichloropropene	13 U	13 U	12 U	
Bromoform	13 U	13 U	12 U	
4-Methyl-2-pentanone	13 U	13 U	12 U	
2-Hexanone	13 U	13 U	12 U	
Tetrachloroethene	13 U	13 U	12 U	
1,1,2,2-Tetrachloroethane	13 U	13 U	12 U	
Toluene	13 U	13 U	12 U	
Chlorobenzene	13 U	13 U	12 U	
Ethylbenzene	13 U	13 U	12 U	
Styrene	13 U	13 U	12 U	
Xylenes (total)	13 U	13 U	12 U	
Sample wt (g):	5.0	5.0	5.0	
%Moisture:	22	25	18	
Dilution Factor:	1	1	1	
Level:	Low	Low	Low	
Number of TIC's:	3	3	4	

Note: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

ORGANIC DATA SUMMARY

Case No.: 25969

SDG: FFR69

Reviewer: Yue-Mei Liu

Laboratory: CLAYTN

Matrix: WATER

Units: ug/L

SEMOVOLATILES	FLAG	FLAG	FLAG	FLAG	FLAG	FLAG	FLAG
EPA SAMPLE NUMBER:	FF-R69	FF-R74					
Phenol	10 U	10 U					
bis(2-Chloroethyl)ether	10 U	10 U					
2-Chlorophenol	10 U	10 U					
1,3-Dichlorobenzene	10 U	10 U					
1,4-Dichlorobenzene	10 U	10 U					
1,2-Dichlorobenzene	10 U	10 U					
2-Methylphenol	10 U	10 U					
2,2'-Oxybis(1-chloropropane)	10 U	10 U					
4-Methylphenol	10 U	10 U					
N-Nitroso-di-n-propylamine	10 U	10 U					
Hexachloroethane	10 U	10 U					
Nitrobenzene	10 U	10 U					
Isophorone	10 U	10 U					
2-Nitrophenol	10 U	10 U					
2,4-Dimethylphenol	10 U	10 U					
bis(2-Chloroethoxy)methane	10 U	10 U					
2,4-Dichlorophenol	10 U	10 U					
1,2,4-Trichlorobenzene	10 U	10 U					
Naphthalene	10 U	10 U					
4-Chloroaniline	10 U	10 U					
Hexachlorobutadiene	10 U	10 U					
4-Chloro-3-methylphenol	2 J	5 J					
2-Methylnaphthalene	10 U	10 U					
Hexachlorocyclopentadiene	10 U	10 U					
2,4,6-Trichlorophenol	10 U	10 U					
2,4,5-Trichlorophenol	25 U	25 U					
2-Chloronaphthalene	10 U	10 U					
2-Nitroaniline	25 U	25 U					
Dimethylphthalate	10 U	10 U					
Acenaphthylene	10 U	10 U					
2,6-Dinitrotoluene	10 U	10 U					
3-Nitroaniline	25 U	25 U					
Acenaphthene	10 U	10 U					
2,4-Dinitrophenol	25 U	25 U					
4-Nitrophenol	25 U	25 U					
Dibenzofuran	10 U	10 U					
2,4-Dinitrotoluene	10 U	10 U					
Diethylphthalate	10 U	0.5 J					
4-Chlorophenyl-phenylether	10 U	10 U					
Fluorene	10 U	10 U					
4-Nitroaniline	25 U	25 U					
4,6-Dinitro-2-methylphenol	25 U	25 U					
N-Nitrosodiphenylamine	10 U	10 U					
4-Bromophenyl-phenylether	10 U	10 U					
Hexachlorobenzene	10 U	10 U					

ORGANIC DATA SUMMARY

Case No.: 25969

SDG: PFR69

Reviewer: Yue-Mei Liu

Laboratory: CLAYTN

Matrix: WATER

Units: ug/L

SEMIVOLATILES	FLAG	FLAG	FLAG	FLAG	FLAG	FLAG	FLAG
EPA SAMPLE NUMBER:	FF-R69	FF-R74					
Pentachlorophenol	25 U	25 U					
Phenanthrene	10 U	10 U					
Anthracene	10 U	10 U					
Carbazole	10 U	10 U					
Di-n-butylphthalate	10 U	10 U					
Fluoranthene	10 U	10 U					
Pyrene	10 U	10 U					
Butylbenzylphthalate	10 U	10 U					
3,3'-Dichlorobenzidine	10 U	10 U					
Benzo(a)anthracene	10 U	10 U					
Chrysene	10 U	10 U					
bis(2-Ethylhexyl)phthalate	10 U	10 U					
Di-n-octylphthalate	10 U	10 U					
Benzo(b)fluoranthene	10 U	10 U					
Benzo(k)fluoranthene	10 U	10 U					
Benzo(a)pyrene	10 U	10 U					
Indeno(1,2,3-cd)pyrene	10 U	10 U					
Dibenz(a,h)anthracene	10 U	10 U					
Benzo(g,h,i)perylene	10 U	10 U					
Sample Volume (mL):	1000.0	1000.0					
Dilution Factor:	1	1					
Number of TIC's:	2	2					

Note: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

ORGANIC DATA SUMMARY

Case No.: 25969

SDG: FFR69

Reviewer: Yue-Mei Liu

Laboratory: CLAYTN

Matrix: SOIL

Units: ug/Kg

<u>SEMOVOLATILES</u>	<u>FLAG</u>						
EPA SAMPLE NUMBER:	FF-R72	FF-R73	FF-R75	FF-R77	FF-R78	FF-R79	FF-R80
Phenol	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
bis(2-Chloroethyl)ether	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
2-Chlorophenol	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
1,3-Dichlorobenzene	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
1,4-Dichlorobenzene	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
1,2-Dichlorobenzene	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
2-Methylphenol	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
2,2'-Oxybis(1-chloropropane)	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
4-Methylphenol	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
N-Nitroso-di-n-propylamine	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
Hexachloroethane	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
Nitrobenzene	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
Isophorone	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
2-Nitrophenol	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
2,4-Dimethylphenol	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
bis(2-Chloroethoxy)methane	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
2,4-Dichlorophenol	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
1,2,4-Trichlorobenzene	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
Naphthalene	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
4-Chloroaniline	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
Hexachlorobutadiene	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
4-Chloro-3-methylphenol	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
2-Methylnaphthalene	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
Hexachlorocyclopentadiene	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
2,4,6-Trichlorophenol	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
2,4,5-Trichlorophenol	34000 U	1100 U	34000 U	32000 U	1100 U	32000 U	35000 U
2-Chloronaphthalene	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
2-Nitroaniline	34000 U	1100 U	34000 U	32000 U	1100 U	32000 U	35000 U
Dimethylphthalate	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
Acenaphthylene	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
2,6-Dinitrotoluene	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
3-Nitroaniline	34000 U	1100 U	34000 U	32000 U	1100 U	32000 U	35000 U
Acenaphthene	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
2,4-Dinitrophenol	34000 U	1100 U	34000 U	32000 U	1100 U	32000 U	35000 U
4-Nitrophenol	34000 U	1100 U	34000 U	32000 U	1100 U	32000 U	35000 U
Dibenzofuran	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
2,4-Dinitrotoluene	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
Diethylphthalate	14000 U	440 U	810 J	13000 U	440 U	13000 U	14000 U
4-Chlorophenyl-phenylether	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
Fluorene	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
4-Nitroaniline	34000 U	1100 U	34000 U	32000 U	1100 U	32000 U	35000 U
4,6-Dinitro-2-methylphenol	34000 U	1100 U	34000 U	32000 U	1100 U	32000 U	35000 U
N-Nitrosodiphenylamine	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
4-Bromophenyl-phenylether	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
Hexachlorobenzene	15000	440 U	14000 U	13000 U	440 U	13000 U	14000 U

ORGANIC DATA SUMMARY

Case No.: 25969

SDG: FFR69

Reviewer: Yue-Mei Liu

Laboratory: CLAYTN

Matrix: SOIL

Units: ug/Kg

SEMIVOLATILES	FLAG	FLAG	FLAG	FLAG	FLAG	FLAG	FLAG
EPA SAMPLE NUMBER:	FF-R72	FF-R73	FF-R75	FF-R77	FF-R78	FF-R79	FF-R80
Pentachlorophenol	34000 U	1100 U	34000 U	32000 U	1100 U	32000 U	35000 U
Phenanthrene	14000 U	440 U	14000 U	1400 J	440 U	13000 U	14000 U
Anthracene	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
Carbazole	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
Di-n-butylphthalate	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
Fluoranthene	14000 U	38 J	14000 U	13000 U	28 J	13000 U	14000 U
Pyrene	14000 U	48 J	14000 U	13000 U	27 J	13000 U	14000 U
Butylbenzylphthalate	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
3,3'-Dichlorobenzidine	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
Benzo(a)anthracene	14000 U	39 J	14000 U	13000 U	440 U	13000 U	14000 U
Chrysene	14000 U	62 J	14000 U	13000 U	24 J	13000 U	14000 U
bis(2-Ethylhexyl)phthalate	14000 U	260 JB	14000 U	950 J	440 U	13000 U	14000 U
Di-n-octylphthalate	14000 U	31 J	14000 U	13000 U	440 U	13000 U	14000 U
Benzo(b)fluoranthene	14000 U	74 J	14000 U	13000 U	28 J	13000 U	14000 U
Benzo(k)fluoranthene	14000 U	66 J	14000 U	13000 U	25 J	13000 U	14000 U
Benzo(a)pyrene	14000 U	50 J	14000 U	13000 U	440 U	13000 U	14000 U
Indeno(1,2,3-cd)pyrene	14000 U	46 J	14000 U	13000 U	440 U	13000 U	14000 U
Dibenz(a,h)anthracene	14000 U	440 U	14000 U	13000 U	440 U	13000 U	14000 U
Benzo(g,h,i)perylene	14000 U	44 J	14000 U	13000 U	440 U	13000 U	14000 U
Sample wt (g):	1.0	30.0	1.0	1.0	30.0	1.0	1.0
%Moisture:	26	26	26	22	26	22	28
Dilution Factor:	1	1	1	1	1	1	1
Level:	Med	Low	Med	Med	Low	Med	Med
Number of TIC's:	30	30	30	28	30	17	30

Note: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

ORGANIC DATA SUMMARY

Case No.: 25969

SDG: FFR69

Reviewer: Yue-Mei Liu

Laboratory: CLAYTN

Matrix: SOIL

Units: ug/Kg

SEMICVOLATILES	FLAG	FLAG	FLAG	FLAG	FLAG	FLAG	FLAG
EPA SAMPLE NUMBER:	FF-R84	FF-R88	FF-R89				
Phenol	430 U	450 U	420 U				
bis(2-Chloroethyl)ether	430 U	450 U	420 U				
2-Chlorophenol	430 U	450 U	420 U				
1,3-Dichlorobenzene	430 U	450 U	420 U				
1,4-Dichlorobenzene	430 U	450 U	420 U				
1,2-Dichlorobenzene	430 U	450 U	420 U				
2-Methylphenol	430 U	450 U	420 U				
2,2'-Oxybis(1-chloropropane)	430 U	450 U	420 U				
4-Methylphenol	430 U	450 U	420 U				
N-Nitroso-di-n-propylamine	430 U	450 U	420 U				
Hexachloroethane	430 U	450 U	420 U				
Nitrobenzene	430 U	450 U	420 U				
Isophorone	430 U	450 U	420 U				
2-Nitrophenol	430 U	450 U	420 U				
2,4-Dimethylphenol	430 U	450 U	420 U				
bis(2-Chloroethoxy)methane	430 U	450 U	420 U				
2,4-Dichlorophenol	430 U	450 U	420 U				
1,2,4-Trichlorobenzene	430 U	450 U	420 U				
Naphthalene	430 U	450 U	420 U				
4-Chloroaniline	430 U	450 U	420 U				
Hexachlorobutadiene	430 U	450 U	420 U				
4-Chloro-3-methylphenol	430 U	450 U	420 U				
2-Methylnaphthalene	430 U	450 U	420 U				
Hexachlorocyclopentadiene	430 U	450 U	420 U				
2,4,6-Trichlorophenol	430 U	450 U	420 U				
2,4,5-Trichlorophenol	1100 U	1100 U	1100 U				
2-Chloronaphthalene	430 U	450 U	420 U				
2-Nitroaniline	1100 U	1100 U	1100 U				
Dimethylphthalate	430 U	450 U	420 U				
Acenaphthylene	430 U	450 U	420 U				
2,6-Dinitrotoluene	430 U	450 U	420 U				
3-Nitroaniline	1100 U	1100 U	1100 U				
Acenaphthene	430 U	450 U	420 U				
2,4-Dinitrophenol	1100 U	1100 U	1100 U				
4-Nitrophenol	1100 U	1100 U	1100 U				
Dibenzofuran	430 U	450 U	420 U				
2,4-Dinitrotoluene	430 U	450 U	420 U				
Diethylphthalate	430 U	450 U	420 U				
4-Chlorophenyl-phenylether	430 U	450 U	420 U				
Fluorene	430 U	450 U	420 U				
4-Nitroaniline	1100 U	1100 U	1100 U				
4,6-Dinitro-2-methylphenol	1100 U	1100 U	1100 U				
N-Nitrosodiphenylamine	430 U	450 U	420 U				
4-Bromophenyl-phenylether	430 U	450 U	420 U				
Hexachlorobenzene	430 U	450 U	420 U				

ORGANIC DATA SUMMARY

Case No.: 25969

SDG: FFR69

Reviewer: Yue-Mei Liu

Laboratory: CLAYTN

Matrix: SOIL

Units: ug/Kg

SEMIVOLATILES	FLAG FF-R84	FLAG FF-R88	FLAG FF-R89	FLAG	FLAG	FLAG	FLAG
EPA SAMPLE NUMBER:							
Pentachlorophenol	1100 U	1100 U	1100 U				
Phenanthrene	160 J	40 J	75 J				
Anthracene	430 U	450 U	420 U				
Carbazole	430 U	450 U	420 U				
Di-n-butylphthalate	430 U	450 U	420 U				
Fluoranthene	390 J	120 J	130 J				
Pyrene	330 J	100 J	110 J				
Butylbenzylphthalate	430 U	450 U	420 U				
3,3'-Dichlorobenzidine	430 U	450 U	420 U				
Benzo(a)anthracene	140 J	52 J	49 J				
Chrysene	210 J	75 J	67 J				
bis(2-Ethylhexyl)phthalate	430 U	450 U	420 U				
Di-n-octylphthalate	32 J	450 U	420 U				
Benzo(b)fluoranthene	190 J	80 J	57 J				
Benzo(k)fluoranthene	170 J	74 J	55 J				
Benzo(a)pyrene	170 J	70 J	56 J				
Indeno(1,2,3-cd)pyrene	140 J	61 J	44 J				
Dibenz(a,h)anthracene	430 U	450 U	420 U				
Benzo(g,h,i)perylene	120 J	62 J	41 J				
Sample wt (g):	30.0	30.0	30.0				
Moisture:	24	27	22				
Dilution Factor:	1	1	1				
Level:	Low	Low	Low				
Number of TIC's:	30	30	30				

Note: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

ORGANIC DATA SUMMARY

Case No.: 25969

SDG: FFR69

Reviewer: Mike Fertitta

Laboratory: CLAYTN

Matrix: WATER

Units: ug/L

PESTICIDES/PCBs	FLAG	FLAG	FLAG	FLAG	FLAG	FLAG	FLAG
EPA SAMPLE NUMBER:	FF-R69	FF-R74					
alpha-BHC	0.05 U	0.05 U					
beta-BHC	0.05 U	0.05 U					
delta-BHC	0.05 U	0.05 U					
gamma-BHC (lindane)	0.05 U	0.05 U					
Heptachlor	0.05 U	0.05 U					
Aldrin	0.05 U	0.05 U					
Heptachlor epoxide	0.05 U	0.05 U					
Endosulfan I	0.05 U	0.05 U					
Dieldrin	0.10 U	0.10 U					
4,4'-DDE	0.10 U	0.10 U					
Endrin	0.10 U	0.10 U					
Endosulfan II	0.10 U	0.10 U					
4,4'-DDD	0.10 U	0.10 U					
Endosulfan sulfate	0.10 U	0.10 U					
4,4'-DDT	0.10 U	0.10 U					
Methoxychlor	0.50 U	0.50 U					
Endrin ketone	0.10 U	0.10 U					
Endrin aldehyde	0.10 U	0.10 U					
alpha-Chlordane	0.05 U	0.05 U					
gamma-Chlordane	0.05 U	0.05 U					
Toxaphene	5.0 U	5.0 U					
Aroclor-1016	1.0 U	1.0 U					
Aroclor-1221	2.0 U	2.0 U					
Aroclor-1232	1.0 U	1.0 U					
Aroclor-1242	1.0 U	1.0 U					
Aroclor-1248	1.0 U	1.0 U					
Aroclor-1254	1.0 U	1.0 U					
Aroclor-1260	1.0 U	1.0 U					
Sample Volume (mL):	1000	1000					
Dilution Factor:	1.0	1.0					

Note: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

ORGANIC DATA SUMMARY

Case No.: 25969

SDG: FFR69

Reviewer: Mike Fertitta

Laboratory: CLAYTN

Matrix: SOIL

Units: ug/Kg

PESTICIDES/PCBs	FLAG	FLAG	FLAG	FLAG	FLAG	FLAG	FLAG
EPA SAMPLE NUMBER:	FF-R72	FF-R72DL	FF-R73	FF-R73DL	FF-R75	FF-R75DL	FF-R77
alpha-BHC	2300 U	23000 U*	2.3 U	23 U*	2300 U	23000 U*	2.2 U
beta-BHC	2300 U	23000 U*	2.3 U	23 U*	2300 U	23000 U*	2.2 U
delta-BHC	2300 U	23000 U*	2.3 U	23 U*	2300 U	23000 U*	2.2 U
gamma-BHC (lindane)	2300 U	23000 U*	2.3 U	23 U*	2300 U	23000 U*	2.2 U
Heptachlor	2300 U	23000 U*	2.3 U	23 U*	2300 U	23000 U*	2.2 U
Aldrin	2300 U	23000 U*	2.3 U	23 U*	2300 U	23000 U*	1.2 J
Heptachlor epoxide	2300 U	23000 U*	2.3 U	23 U*	2300 U	23000 U*	2.2 U
Endosulfan I	2300 U	23000 U*	2.3 U	23 U*	2300 U	23000 U*	2.2 U
Dieldrin	4400 U	44000 U*	4.4 U	44 U*	4400 U	44000 U*	4.2 U
4,4'-DDE	4400 U	44000 U*	4.4 U	44 U*	4400 U	44000 U*	3.9 J
Endrin	14000 U	14000 U*	95 *	190 U	14000 U	14000 U*	6.6 U
Endosulfan II	4400 U	14000 *	4.4 U	6.4 *	4400 U*	44000 U	4.2 U
4,4'-DDD	4400 U	44000 U*	4.4 U	44 U*	4400 U	44000 U*	4.2 U
Endosulfan sulfate	4400 U	44000 U*	4.4 U	44 U*	4400 U	44000 U*	4.2 U
4,4'-DDT	4400 U*	44000 UJv	4.4 U*	44 UJv	4400 U*	44000 UJv	4.2 UJv
Methoxychlor	23000 U	230000 U*	23 U	230 U*	23000 U	230000 U*	22 U
Endrin ketone	14000 U	14000 U*	43 *	70 U	14000 U	14000 U*	4.2 U
Endrin aldehyde	4400 U	44000 U*	4.4 U	44 U*	4400 U	44000 U*	4.2 U
alpha-Chlordane	2300 U	23000 U*	2.3 U	23 U*	2300 U	23000 U*	2.2 U
gamma-Chlordane	4600 U	5900 *	2.3 U	2.5 *	6600 U	8600 *	2.2 U
Toxaphene	230000 U	2300000 U*	230 U	2300 U*	230000 U	2300000 U*	220 U
Aroclor-1016	44000 U	440000 U*	44 U	440 U*	44000 U	440000 U*	42 U
Aroclor-1221	90000 U	900000 U*	90 U	900 U*	90000 U	900000 U*	86 U
Aroclor-1232	44000 U	440000 U*	44 U	440 U*	44000 U	440000 U*	42 U
Aroclor-1242	44000 U	440000 U*	44 U	440 U*	44000 U	440000 U*	42 U
Aroclor-1248	44000 U	440000 U*	44 U	440 U*	44000 U	440000 U*	42 U
Aroclor-1254	44000 U	440000 U*	44 U	440 U*	44000 UJv	440000 U*	42 U
Aroclor-1260	1400000 *	2300000 J	1700 *	3100 J	2000000 *	4100000 J	160 J
Sample wt (g):	30.0	30.0	30.0	30.0	30.0	30.0	30.0
%Moisture:	26	26	26	26	26	26	22
Dilution Factor:	1000.0	10000.0	1.0	10.0	1000.0	10000.0	1.0

Note: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

ORGANIC DATA SUMMARY

Case No.: 25969

SDG: FFR69

Reviewer: Mike Fertitta

Laboratory: CLAYTN

Matrix: SOIL

Units: ug/Kg

PESTICIDES/PCBs	FLAG	FLAG	FLAG	FLAG	FLAG	FLAG	FLAG
EPA SAMPLE NUMBER:	FF-R78	FF-R79	FF-R79DL	FF-R80	FF-R80DL	FF-R84	FF-R88
alpha-BHC	2.3 U	110 U	1100 U*	2400 U	24000 U*	2.2 U	2.3 U
beta-BHC	2.3 U	110 U	1100 U*	2400 U	24000 U*	2.2 U	2.3 U
delta-BHC	2.3 U	110 U	1100 U*	2400 U	24000 U*	2.2 U	2.3 U
gamma-BHC (lindane)	2.3 U	110 U	1100 U*	2400 U	24000 U*	2.2 U	2.3 U
Heptachlor	2.3 U	110 U	1100 U*	2400 U	24000 U*	2.2 U	2.3 U
Aldrin	2.3 U	110 U	1100 U*	2400 U	24000 U*	2.2 U	2.3 U
Heptachlor epoxide	2.3 U	110 U	1100 U*	2400 U	24000 U*	2.2 U	2.3 U
Endosulfan I	2.3 U	110 U	1100 U*	2400 U	24000 U*	2.2 U	2.3 U
Dieldrin	4.4 U	210 U	2100 U*	4600 U	46000 U*	4.2 U	4.5 U
4,4'-DDE	1.2 J	210 U	2100 U*	4600 U	46000 U*	4.2 U	2.0 J
Endrin	14 U	3800 *	6500 U	14000 U	14000 U*	4.2 U	4.5 U
Endosulfan II	4.4 U	210 U	220 *	12000 U	11000 *	4.2 U	4.5 U
4,4'-DDD	4.4 U	24 J	2100 U*	4600 U	46000 U*	4.2 U	4.5 U
Endosulfan sulfate	4.4 U	210 U	2100 U*	4600 U	46000 U*	4.2 U	4.5 U
4,4'-DDT	4.4 UJv	210 U*	2100 UJv	4600 U*	46000 UJv	4.2 U	4.5 U
Methoxychlor	23 U	1100 U	11000 U*	24000 U	240000 U*	22 U	23 U
Endrin ketone	7.5 U	1500 *	2200 U	14000 U	14000 U*	4.2 U	4.5 U
Endrin aldehyde	4.4 U	210 U	2100 U*	4600 U	46000 U*	4.2 U	4.5 U
alpha-Chlordane	2.3 U	14 J	1100 U*	2400 U	24000 U*	2.2 U	2.3 U
gamma-Chlordane	2.3 U	120 U	180 *	6600 U	9100 *	2.2 U	2.3 U
Toxaphene	230 U	11000 U	110000 U*	240000 U	2400000 U*	220 U	230 U
Aroclor-1016	44 U	2100 U	21000 U*	46000 U	460000 U*	42 U	45 U
Aroclor-1221	90 U	4300 U	43000 U*	93000 U	930000 U*	86 U	92 U
Aroclor-1232	44 U	2100 U	21000 U*	46000 U	460000 U*	42 U	45 U
Aroclor-1242	44 U	2100 U	21000 U*	46000 U	460000 U*	42 U	45 U
Aroclor-1248	44 U	2100 U	21000 U*	46000 U	460000 U*	42 U	45 U
Aroclor-1254	44 U	2100 U	21000 U*	46000 U	460000 U*	42 U	45 U
Aroclor-1260	320 J	63000 *	94000 J	1700000 *	3000000 J	37 J	75 J
Sample wt (g):	30.0	30.0	30.0	30.0	30.0	30.0	30.0
%Moisture:	26	22	22	28	28	22	27
Dilution Factor:	1.0	50.0	500.0	1000.0	10000.0	1.0	1.0

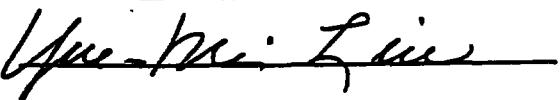
Note: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

ORGANIC DATA SUMMARY

Case No.: 25969	SDG:	FFR69	Reviewer:	Mike Fertitta
Laboratory: CLAYTN	Matrix:	SOIL	Units:	ug/Kg
<u>PESTICIDES/PCBs</u>				
EPA SAMPLE NUMBER:	FF-R89	FLAG	FLAG	FLAG
alpha-BHC	2.3 U			
beta-BHC	2.3 U			
delta-BHC	2.3 U			
gamma-BHC (lindane)	2.3 U			
Heptachlor	2.3 U			
Aldrin	2.3 U			
Heptachlor epoxide	2.3 U			
Endosulfan I	2.3 U			
Dieldrin	4.4 U			
4,4'-DDE	4.4 U			
Endrin	4.4 U			
Endosulfan II	4.4 U			
4,4'-DDD	4.4 U			
Endosulfan sulfate	4.4 U			
4,4'-DDT	4.4 U			
Methoxychlor	23 U			
Endrin ketone	4.4 U			
Endrin aldehyde	4.4 U			
alpha-Chlordane	2.3 U			
gamma-Chlordane	2.3 U			
Toxaphene	230 U			
Aroclor-1016	44 U			
Aroclor-1221	90 U			
Aroclor-1232	44 U			
Aroclor-1242	44 U			
Aroclor-1248	44 U			
Aroclor-1254	44 U			
Aroclor-1260	31 J			
Sample wt (g):	30.0			
Moisture:	26			
Dilution Factor:	1.0			

Note: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

INORGANIC/ORGANIC COMPLETE SDG FILE (CSF) INVENTORY CHECKLIST

Case No.	25969	SDG No.	FFR69	SDG Nos. To Follow	SAS No.	Date Rec	03-02-98																																																																																																																								
EPA Lab ID: CLAYTN Lab Location: 22345 Roethal Drive, Nori, MI 48375 Region: 6 Audit No.: 25969/FFR69 Re_Submitted CSF? Yes _____ No <input checked="" type="checkbox"/> X Box No(s): 1 COMMENTS:				<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">ORIGINALS</th> <th style="width: 10%;">YES</th> <th style="width: 10%;">NO</th> <th style="width: 10%;">N/A</th> </tr> </thead> <tbody> <tr> <td colspan="4">CUSTODY SEALS</td> </tr> <tr> <td>1. Present on package?</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> </tr> <tr> <td>2. Intact upon receipt?</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> </tr> <tr> <td colspan="4">FORM DC-2</td> </tr> <tr> <td>3. Numbering scheme accurate?</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> </tr> <tr> <td>4. Are enclosed documents listed?</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> </tr> <tr> <td>5. Are listed documents enclosed?</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> </tr> <tr> <td colspan="4">FORM DC-1</td> </tr> <tr> <td>6. Present?</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> </tr> <tr> <td>7. Complete?</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> </tr> <tr> <td>8. Accurate?</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> </tr> <tr> <td colspan="4">CHAIN-OF-CUSTODY RECORD(s)</td> </tr> <tr> <td>9. Signed?</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> </tr> <tr> <td>10. Dated?</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> </tr> <tr> <td colspan="4">TRAFFIC REPORT(s) PACKING LIST(s)</td> </tr> <tr> <td>11. Signed?</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> </tr> <tr> <td>12. Dated?</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> </tr> <tr> <td colspan="4">AIRBILLS/AIRBILL STICKER</td> </tr> <tr> <td>13. Present?</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> </tr> <tr> <td>14. Signed?</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> </tr> <tr> <td>15. Dated?</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> </tr> <tr> <td colspan="4">SAMPLE TAGS</td> </tr> <tr> <td>16. Does DC-1 list tags as being included?</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> </tr> <tr> <td>17. Present?</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> </tr> <tr> <td colspan="4">OTHER DOCUMENTS</td> </tr> <tr> <td>18. Complete?</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> </tr> <tr> <td>19. Legible?</td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> </tr> <tr> <td>20. Original?</td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> </tr> <tr> <td>20a. If "NO", does the copy indicate where original documents are located?</td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> </tr> </tbody> </table>				ORIGINALS	YES	NO	N/A	CUSTODY SEALS				1. Present on package?	<input checked="" type="checkbox"/>			2. Intact upon receipt?	<input checked="" type="checkbox"/>			FORM DC-2				3. Numbering scheme accurate?	<input checked="" type="checkbox"/>			4. Are enclosed documents listed?	<input checked="" type="checkbox"/>			5. Are listed documents enclosed?	<input checked="" type="checkbox"/>			FORM DC-1				6. Present?	<input checked="" type="checkbox"/>			7. Complete?	<input checked="" type="checkbox"/>			8. Accurate?	<input checked="" type="checkbox"/>			CHAIN-OF-CUSTODY RECORD(s)				9. Signed?	<input checked="" type="checkbox"/>			10. Dated?	<input checked="" type="checkbox"/>			TRAFFIC REPORT(s) PACKING LIST(s)				11. Signed?	<input checked="" type="checkbox"/>			12. Dated?	<input checked="" type="checkbox"/>			AIRBILLS/AIRBILL STICKER				13. Present?	<input checked="" type="checkbox"/>			14. Signed?	<input checked="" type="checkbox"/>			15. Dated?	<input checked="" type="checkbox"/>			SAMPLE TAGS				16. Does DC-1 list tags as being included?	<input checked="" type="checkbox"/>			17. Present?	<input checked="" type="checkbox"/>			OTHER DOCUMENTS				18. Complete?	<input checked="" type="checkbox"/>			19. Legible?	<input checked="" type="checkbox"/>			20. Original?		<input checked="" type="checkbox"/>		20a. If "NO", does the copy indicate where original documents are located?		<input checked="" type="checkbox"/>	
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In Reference To
Case 25969 SDG FFR69
ESAT File No. Q-1887
Page 1 of 2 Pages

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM

FAX Record Log

Date of FAX:	<u>March 17, 1998</u>
Laboratory Name:	<u>CLAYTN</u>
Lab Contact:	<u>Kelly Kolb</u>
Region:	<u>6</u>
Regional Contact:	<u>Mahmoud El-Feky - EPA</u>
ESAT Reviewer:	<u>Michael J. Fertitta - ESAT</u>
FAX initiated by:	<u>Laboratory</u> <input checked="" type="checkbox"/> Region

In reference to data for the Pest/PCB fraction.

Summary of Questions/Issues:

1. The "C" flags were omitted from the AR1260 results for samples FF-R72, FF-R73DL, FF-R79, FF-R79DL, and FF-R80. Please correct and resubmit the Forms 1 for these samples (pages 1133, 1205, 1303, 1326, and 1335).
2. The endrin concentration in sample FF-R88 was below the CRQL, but the result was missing a "J" flag. Please correct and resubmit the Form 1 (page 1400).
3. Samples FF-R72/DL, FF-R75/DL, and FF-R80/DL: The case narrative indicated that GC/MS confirmation was performed on both the BNA and the Pest/PCB extracts for these samples but did not clarify which extract the 330 µg/kg detection limit for the unconfirmed endrin and endrin ketone was based on. If it was based on the BNA extract, the detection limit should be a minimum of 30X higher because of the medium level extraction. Please clarify this issue or resubmit Form I's to report the medium level detection limit for endrin and endrin ketone.

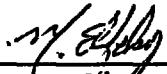
NOTE: Any laboratory resubmission should be submitted either as an addendum to the original CSF with a revised Form DC-2 or submitted as a new CSF with a new Form DC-2 (OLM03.0, p. B-22), except those containing only replacement pages. Custody seals are required for all CSF resubmission shipments.

In Reference To
Case 25969 SDG FFR69
ESAT File No. Q-1887
Page 1 of 2 Pages

Please respond to the above items. Region 6 resubmissions may be included with CCS response or sent separately within 7 days to:

Mr. Mahmoud El-Feky
U.S. EPA Region 6 Laboratory
10625 Fallstone Road
Houston, TX 77099

If you have any questions, please contact me at (281) 983-2128.



Signature

03/17/98

Date

Distribution: (1) Lab Copy, (2) Region Copy, (3) ESAT Copy